



THE BRIEF

Spring 2012

FAA – ARTCC Center Weather Service Unit,
8000 Louisiana Blvd. NE, Albuquerque, NM 87109

Web: <http://www.srh.noaa.gov/zab/> Editor: James Reynolds [Email:james.reynolds@noaa.gov](mailto:james.reynolds@noaa.gov)

From the Editor...Introducing the ZAB ADC LTD. Security Guard Staff

ADCL is a highly experienced, locally owned business providing a variety of first-class security support services in New Mexico to the **Federal Aviation Administration (FAA) Air Route Traffic Control Center (ARTCC)**, and to the City of Albuquerque, which includes: The Albuquerque Sun Port, the Albuquerque Transportation Department, the Metropolitan Court House (downtown), and all special events (State Fair, Freedom Fourth, etc.). ADCL also provides security support for the National Aeronautics and Space Administration (NASA) White Sands Complex and other government and commercial agencies.



Mr. Arthur D. Cordova, Jr., a disadvantaged yet successful 1994 graduate of the Small Business Administration's 8(a) program, founded ADCL in 1983 to provide technical and administrative support services to Government agencies and commercial clients. ADCL established its headquarters in Albuquerque in 1985 and the company started with just three employees. ADCL's steady growth leading to the employment of over 325 full-time employees and 1,500 contract investigators has been a result of the company's full commitment to quality service, outstanding performance, and unparalleled integrity. In 1987, ADCL was recognized for its superior performance by winning the Small Business Administration's Administrator's Award for excellence in meeting Federal procurement needs.

ADCL is a family-owned business that takes pride in providing high levels of security and services to its clients. Being family-owned, the company takes the hands-on approach with its clients and staff. ADCL is honored to provide security for the FAA and takes its role to protect the facilities, staffs, and visitors very seriously. ADCL maintains its own training center and certified trainers in order to assure its Security Officers are able to provide the highest level of professional security services in the security industry.



The ZAB ADC Security Guard Team

Training Requirements for an ADC Level 3 Security Guard (Qualified to work at ZAB)

- Specific techniques for self-defense
- Hand to hand conflict resolution
- Basic first aid as well as fundamentals of CPR and AED use
- Handcuffing
- Organic compound (pepper spray)
- Security Firearms Qualification Requirements:
 - Safe handgun and shooting fundamentals
 - Revolver and semi-automatic fundamentals
 - Legalities of handgun use
 - Being an armed security guard
 - Techniques for avoiding use of a handgun
 - Range live firing to demonstrate handgun competency – test consists of a 50-round series. Pass/fail with an 80% for passing (a second series may be requested by the instructor to confirm proficiency. Each series shall contain:
 - 6 rounds, 1 yard firing from the hip-ready position
 - 4 rounds, 3 yards firing one-handed, non-dominant hand
 - 6 rounds, 7 yards from draw, right side of cover
 - 6 rounds, 7 yards from draw, left side of cover
 - 4 rounds, 7 yards from draw, kneeling
 - 4 rounds, 7 yards from draw, one handed, non-supported
 - 10 rounds, 10 yards from draw, standing position of comfort
 - 10 rounds, 15 yards from draw, standing position of comfort

ADC Security Guard Directory



Officer Averlio Johnson – Born in Cebolla, NM. Experience: U.S. Navy – Retired after 21 years. Refrigeration technician 15 years. Slot machine repairman, U.S. Navy Liaison in Mexico - Spanish linguist 6 ½ years, Special Operation Air Borne, Fort Bragg, NC. Special skills: Concealed weapons permit. Special awards: Vietnam Service Medals, 2 Golden Gloves Boxing Medals, 2 High School football letters.



Officer Errol Schlenker – Born in Brunswick, NJ. Experience: Harrison Western Co., Mount Taylor Project Uranium Mine, Lockheed Air Terminal ABQ, NM, Southwest Airlines ABQ, NM and Omaha, NE. Special skills: HAZMAT, HAZWOP, bio-hazard, blood-borne pathogen trained. Hobbies: Dirt and asphalt auto racing, collecting antiques – especially western art and Native American relics. Awards: Southwest Airlines “Winning Spirit” and “Employee of the Year”, Recognition awards from American Airlines and Lockheed Martin, late-model dirt track champion team member.



Supervisor Gary Neely – Born in Nurnburg, Germany. Experience: Security with ADC LTD. 4 years, ADC/FAA Supervisor 2 years, New Mexico licensed contractor 33 years. Special skills: 28 years martial arts. Received Black Belt in 12 years. Kajukembo, judo, jiu jitsu, and kickboxing, Chinese boxing, and escrima stick fighting. Hobbies: hunting, fishing, riding and hunting with horses, motorcycle riding, hiking, camping, and mountain bike riding. Awards: Black Belt award instructor (Si Fu).



Officer Michael Kountz – Experience: 2 college degrees, business management 10 years, personal body guard for touring musicians, working security for local establishments, professional glamour and landscape photographer. Skills: Tang Soo Do. Hobbies: spending time in the woodshop.



Officer Michael Penna – Experience: Supervisor maintenance operations/International military Service Center (USPS) Chicago, IL 30 years, USPS/Mail processing equipment mechanic and electrician, licensed Supervising Electrician for the Department of Buildings of the City of Chicago 10 years, owner of Penna Electric Service 12 years. Skills: Greco-Roman and free-style wrestling. Awards: accommodation for assisting in the electrical design and installation of radiation detectors for “dirty bombs” at the Chicago USPS/Customs Service Mail Center.



Officer Phillip Mitchell – Experience: BS and BA University of Phoenix, BA Education degree UNM, Washington and New Mexico State Law Enforcement Academies, law enforcement 10 years, security experience 10 years, elementary teacher 5 years, policeman, pipeliner, preacher, teacher. Special skills: combat firearms training, law enforcement survival training. Awards: Officer of the Year – College Place, WA., Award of Merit – Bloomfield, NM.



Officer Ralph Waddles – Experience: attended Colloya Highland University, U.S. Army Special Forces Sniper, U.S. Army National Guard ammo Sergeant, Security Officer for Metro Court, Loomis-Fargo, and Sandia Laboratories. Skills: Black Belt in Chinese martial arts (Kung Fu). Competed in several martial arts tournaments and was televised on ESPN. Hobbies: playing basketball, running track, biking, lifting weights, and bowling. Awards: medal for Good Conduct during the Santa Fe Prison riot.



Officer Richard Ortega – Experience: ADC LTD. Security Guard 8 years. Loomis-Fargo security, Service Manager for a major rental car company 16 years. Skills: handgun proficient. Hobbies: playing the guitar and singing, playing basketball, long-distance bike riding, bowling, and traveling. Awards: Certificate of Leadership and Collaborative Excellence from the FAA.



Officer Robert Babcock – Experience: FAA Air Traffic Controller ABQ ARTCC (retired), New York Common IFR Room (TRACON), and AMA Tower, U.S. Air Force Air Traffic Controller, U.S. Air Force Law Enforcement Training. Hobbies: reading and target shooting. Special awards: member National Gold Key Honor Society, several FAA commendations.



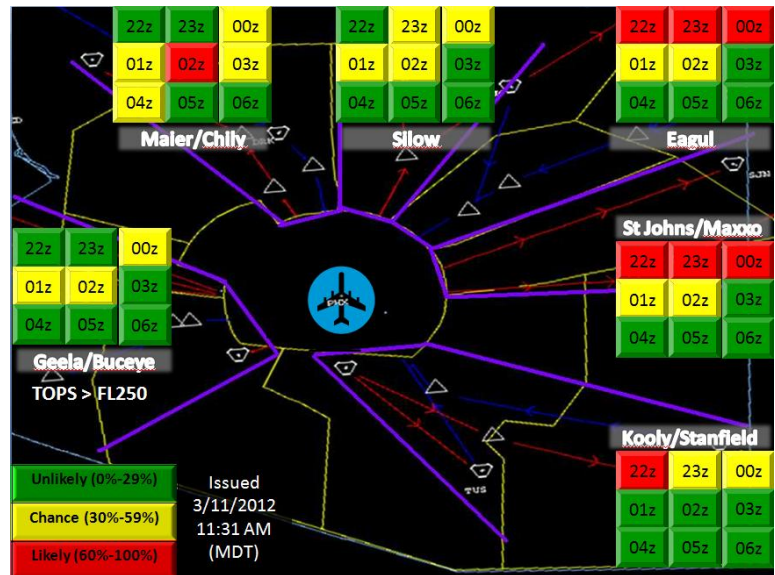
Officer Terri Ashcroft – Experience: completed 3 ½ years BRN at UNM. ERS, CCTV securing systems and dispatching, Court Bailiff, ATLAS Supervisor. Skills: CNA 3 years, business owner – licensed landscape contractor and heavy equipment operator 20 years. Hobbies: racing Super Truck class, dirt track driver, fishing, and camping. Awards: New Mexico arm-wrestling state champion, 2 professional fishing angler awards, top 10% score on ACT in New Mexico.

Color Scheme Changes to the KPHX Convective Gate Forecast

By Jim Reynolds, CWSU Meteorologist-in-Charge

With thunderstorm season rapidly approaching, we here at the CWSU will soon be highlighting our convective gate forecast for KPHX in the twice-daily standup briefings once again. As a reminder, the KPHX gate forecast is issued to show the possibility of cloud tops at 25,000 feet or greater in Phoenix's arrival and departure gates. Tops greater than 25,000 feet generally infer the presence of thunderstorms in an area.

Due to a national FAA request, the color scheme for the product has changed. As of this writing, the following colors will represent the chance of tops of 25,000 feet or greater in the arrival and departure gates:



Green = Unlikely (0%-29%), **Yellow** = Chance (30%-59%), **Red** = Likely (60%-100%)

The KPHX convective gate forecast can be found on the Internet 24 hours a day at:

<http://www.srh.noaa.gov/zab/?n=tracon>

Arrivals and Departures

Bruce Cooper – arrived 1/1/12

Steve Stooksberry – arrived 1/29/12

Carolina Carrillo - retired 12/31/11

Gene Victor – retired 12/31/11

Mark Spaulding – retired 12/31/11

Tom McKenzie – retired 12/31/11

Al Miniman – retired 12/31/11

Ben Walcott – retired 12/31/11

James Duran – retired 12/31/11

Henry Rice – transferred to Austin Tower 2/26/12

Justin Lingren – temporary appointment expired 2/28/12

JP Morgan - retired 2/29/2012



Flood Safety Awareness Week - March 12th through the 16th

This week, March 12th through 16th, has been declared National Flood Safety Awareness Week. Although the spring time of the year is normally dry in the desert southwest, New Mexico's monsoon season will return before we know it and with it will come thunderstorms, heavy rainfall, and the potential for flooding.



Flooding and flood-related deaths are a serious problem throughout the U.S. Nationwide, flooding causes more fatalities than any other type of severe weather. Factors that contribute to flooding include the intensity and duration of rainfall, the steepness of the terrain, soil type, existing soil moisture, type of land cover, and the amount of urbanization. In metropolitan areas, flooding often occurs more frequently due to the inability to channel heavy rainfall, which results in the ponding of water on roadways.

Flash flooding is the primary severe weather threat in New Mexico and it occurs when there is a rapid and extreme flow of high water into a normally dry area, or a rapid water level rise in a creek or stream. Flash flooding occurs within a few hours of the heavy precipitation event. Flash flooding can also occur from the failure or overtopping of a dam or flood-retarding structure.

Many roadways in the desert southwest cross into the channels of normally dry washes or streams. These low water crossings are especially susceptible to flooding during and following heavy rainfall. Water rushing across a roadway can quickly become deadly. Just a few inches of fast moving water can force most cars off the road. As little as 18 inches of water can cause a light vehicle to float. Most of the time, it is difficult to determine the depth of water flowing over a road surface and the pavement may actually have been eroded away by the water.



Most flood deaths occur in automobiles. When approaching a flooded roadway, turn around and go the other way. Turn around – don't drown!

Always be alert for the presence of flooding during and following heavy rainfall events. Know the areas that are flood-prone where you normally travel. When heavy rain and flooding threaten your area, stay informed by listening to NOAA Weather Radio, or your favorite local television or radio station.

For more information about Flood Safety Awareness Week, point your Internet web browser to:

<http://www.floodsafety.noaa.gov/>

Operation Rain Check – Next Session Slated for Saturday March 24 7:30 am

By Robby Poole – East Specialty

I have been a controller for 7 years now, and a CPC for four of those years. I still feel that I am learning to be a better controller every day, and I am very happy to be doing something that I love. I got into ATC by accident, and couldn't be happier with the direction my life went. I was a Music Education Major in college, when in 2000 I began working towards my Private Pilots License based on the suggestion of a good friend.

After getting my Private Pilots License in October 2000, I decided I was going to become a commercial airline pilot. I did a lot of flying, and sadly put myself in harm's way numerous times. Thanks to the great folks in ATC, I am alive to tell about my experiences of running out of gas over the city of Fort Worth, TX, or getting caught in IFR conditions due to a misunderstanding of a weather briefing (just to name a few). I began working on my instrument rating in early 2001. As part of my instrument training, I made it part of my studies to visit ATC facilities. I was fascinated with the ATC system. Unfortunately the attacks on our nation took place 3 days prior to my scheduled Instrument check ride. Everything was put on hold. I later received my instrument rating. However, the dream of being a pilot was beginning to look bleaker and bleaker.

My father asked if I ever considered being a controller. He had read an article about the wave of retirements soon to come and suggested that I look into it. I fell in love. I spent the next several months trying to find out how to become a controller. I finally found the avenue to get hired through the MARC school in Minneapolis...and the rest is history.

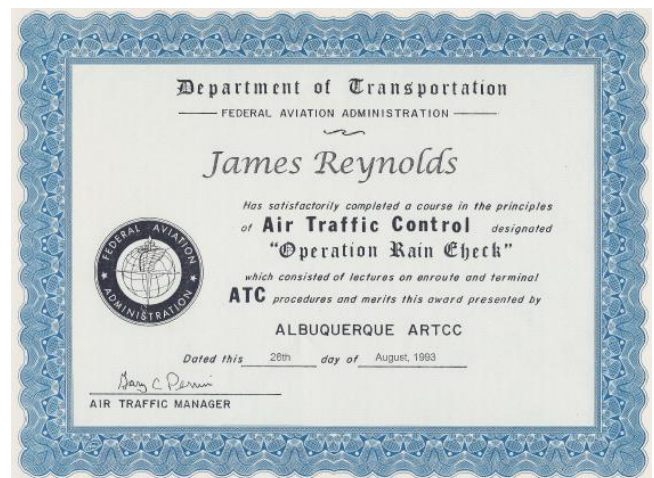
Prior to being accepted to the MARC school, I participated in "Operation Rain Check" at ZFW. Not only was it a tremendous program, but I felt it was the single best aviation learning experience I had ever received. I truly believed a program like this could help save the lives of pilots. Having a pilot know what tools and resources are or are not available could make the difference. Based on my flying mistakes, so many myths were dispelled that I walked away having a better understanding of the tools available. When I got to ZAB, the first request outside of controlling was to help with Operation Rain Check. Several years had passed, and I finally was presented with the opportunity to help.

Recently, I have been placed in charge of organizing Operation Rain Check for ZAB, as well as revamping parts of the program. I am working at creating a program that informs pilots of all of the available tools and resources that controllers have. And even more importantly, what tools and resources we do not have. I am working towards bettering a program that exists to have lasting effects on the safety of pilots through an understanding of what the system can do.

You can register for the **March 24th** session of "Operation Rain Check" by pointing your web browser to:

http://www.faa.gov/SPANS/event_details.aspx?eid=43280

More Operation Rain Checks are being planned for later this year on: 6/30, 7/7, 7/14, 10/27, 11/3, 11/11

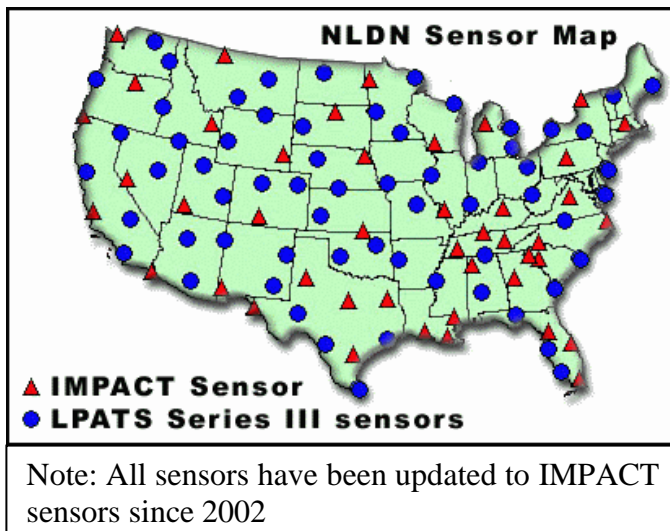


The National Lightning Detection Network (NLDN)

By Roger Smith, CWSU Forecaster

Have you ever wondered what the source for the lightning data that is displayed on WARP system satellite maps is? This data, which gives us a quick view of the movement and intensity of thunderstorms, originates from the U.S. National Lightning Detection Network (NLDN) owned and operated by Vaisala Inc. in Tucson, AZ.

The NLDN consists of over 100 lightning detection sensors which are designed to determine the lapsed time between a cloud-to-ground lightning strike and the direction and angle from the ground strike location to the antenna (called magnetic direction finding). See the map below for the location of NLDN sensors in the continental U.S.



Information from the NLDN sensors is relayed via satellite to the computer systems at the Network Control Center operated by Global Atmospheric, Inc. in Tucson, AZ. After it is processed, lightning data information is sent out to end users within 30 seconds of the cloud-to-ground lightning strike. The NLDN operates 24 hours a day and 365 days a year. The network monitors between 20 and 25 million cloud-to-ground lightning strikes each year across the continental U.S., adjacent coastal waters to approximately 500 km offshore and adjacent land areas of Canada and Mexico. Studies have demonstrated that the network identifies nearly 95% of cloud-to-ground lightning strikes with location errors of less than 500 meters.

Use of lightning strike data by ATC's to re-route aircraft around thunderstorms and to warn pilots of risks during airport takeoffs and landings are examples of the many applications of this data. NWS meteorologists can use lightning data as a diagnostic tool in severe thunderstorm forecasting. Forestry officials can better focus firefighting efforts based on this data. Electric power companies can pre-position crews for thunderstorms threatening transmission lines or generating facilities. Golf courses, outdoor sports facilities and stadiums can take action to protect players and spectators. Power-sensitive manufacturing and processing companies can monitor lightning data and avoid the costs of power outages by switching to generator power before the thunderstorm impacts the area.



Albuquerque National Weather Service Aviation Team Members Extend New Mexico Airports “Road Show”

By Jim Reynolds, CWSU Meteorologist-in-Charge

On Thursday, January 6th Jim Reynolds, Roger Smith and Albuquerque National Weather Service Aviation Program Leader David Craft visited the Farmington Four Corners Regional Airport to meet with Airport Manager **Ben Trujillo**. After discussing many aspects of the airport by showing the group an aerial photo of the airfield, Ben then took the group up into the Air Traffic Control Tower. In the Tower, Ben joined the trio in a conversation with Air Traffic Manager **Joe Soto**.



Farmington Four Corners Regional Airport Terminal and Control Tower

The Farmington Airport resides at an elevation of 5,332 feet and is located on a mesa rising at least 500 feet over the city. While it is a fairly busy regional airport to begin with, the Farmington airport is experiencing a boom-let of traffic in line with increased local oil and gas extraction. Farmington is located in the San Juan Basin Natural Gas Field, which is the second largest natural gas field in the continental US, behind a field in Wyoming. New drilling technologies, along with rising gas and oil prices, are drawing jobs and people to the area. Great Lakes Airlines has between 12 to 15 flights per day to/from Denver, Phoenix, Las Vegas and Los Angeles.



The Taos Municipal Airport terminal building

On the morning of Thursday, Feb. 16 Tom Hall and Jim Reynolds visited with Taos Airport Manager **John Thompson**. The big news at the Taos Airport is that the Taos Pueblo very recently signed a Memorandum of Agreement with the City of Taos, the FAA, the Natural Historic Register, and the National Park Service whereas the Taos Pueblo will give up some land so the airport can proceed with a substantial runway expansion project that has been in-process

for some 20 to 25 years. Essentially, the expansion calls for a 420” reduction of the

south end of the current 5,800 foot 04/22 runway, which will allow for the construction of an 8,600 foot 12/30 runway that will be connected to the south end of 04/22. A “record of decision” on this project is due from the FAA by August this year. If the project is approved, John doesn’t expect that any preliminary dirt work will even be started until three to five years from now.

In concordance with the proposed runway expansion, a high capacity test well has already been dug to determine if enough water can be supplied to the airport for fire-fighting capabilities that would develop in line with larger aircraft that could begin to operate at the airport given the longer runway. Another benefit of the proposed airport expansion plan would be the construction of a 40’ by 60’ building to house the airport’s impressive “Kodiak” snow plow. John showed us a video on his phone of the Kodiak in

action on February 15th after the airport received three inches of snow. The Kodiak has a 16' blade and can run at 60 mph up and down the runway. With its length of blade, it only takes six passes of the Kodiak to clear the entire runway!

Interestingly, there is no commercial service to Taos and there isn't likely to be any time soon either. Two carriers tried to provide service in the past, however these attempts were failures. At least one carrier that had recently contemplated providing service to Taos wanted to be subsidized by the airport at \$100-120 a flight. To aid current fire-fighting needs, the Taos Fire Department keeps a Ford F-550 fire-fighting pumper truck in the airport maintenance shed. This eliminates the 7-10 mile trek a fire-fighting vehicle would have to make from the city of Taos to deal with any kind of aircraft accident/incident that might occur on the airfield.

That same afternoon, Tom and Jim visited with Angel Fire Airport Manager **Harvey Wright** and his assistant **Gary**. Harvey has been the Angel Fire airport manager for eight years. The Angel Fire Airport has an interesting history in that it was originally built back in the late 1960's by a Mr. Lassiter to provide access to a resort he owned and



The Angel Fire Municipal Airport terminal building

operated in the city of Angel Fire. Mr. Wright stated that sometime between 1984 and 1986 Mr. Lassiter sold the airport to Colfax County and the county retains ownership of the airport today. In 1986, a man with the last name of Ross opened a fixed based operator at the airport to provide fuel sales and limited airplane maintenance as well as overall management of the airport. In 2004, Mr. Wright was hired by Ross Aviation to administer the management function of the airport. In 2009, Mr. Ross died. With no will in place, ownership of the FBO and management of the airport fell to the son and daughter of Mr. Ross. In June 2011, the contract held by the Ross family to provide FBO services to the airport expired and the Ross children did not want to extend the contract. FBO services were then transferred to the county at which time Mr. Wright became employed by Colfax County.

The Angel Fire Airport can easily be summarized as a very dangerous airport to fly into and out of. To begin with, at an elevation of 8,380 feet the airport is the 5th highest in the continental U.S. A severe density altitude problem is the main reason behind the single 8,900 foot runway, which qualifies the airport as having the longest runway in the northern half of New Mexico. Of the nine aircraft accidents that have occurred since 1996, eight have occurred during takeoff operations associated with poor aircraft performance due to high density altitude. Conversely, the Angel Fire Airport can be incredibly cold too. During the record cold of 2/2/11, the airport recorded a low temperature of -38 degrees F.

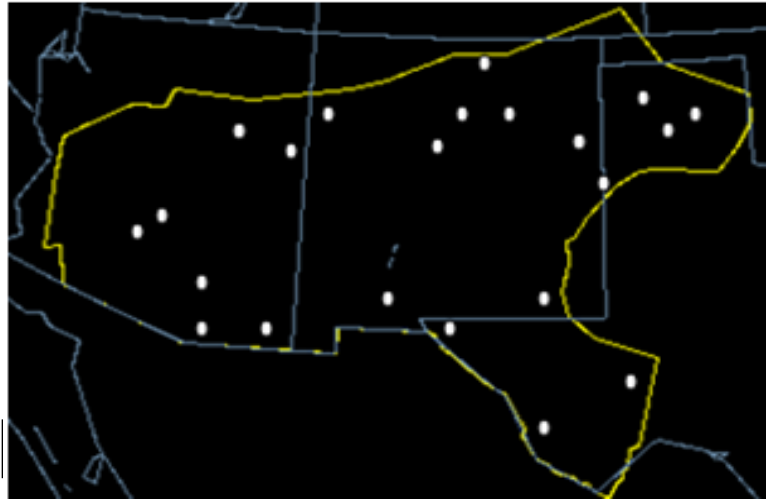
The 17/35 runway is oriented roughly parallel to the valley bowl that Angel Fire exists within to minimize flight into rising terrain as much as possible. Aircraft can still have trouble taking off to the south even with only a 0.64 percent rise in terrain grade during the heat of summer when heavily loaded. Because of the north/south orientation of the runway, the airport experiences a crosswind approximately 90% of the time. Even when the airport isn't experiencing a consistent crosswind, it is quite likely that winds are blowing in multiple directions across the length of the runway. The Angel Fire Airport is ranked as the 5th most challenging airport to land at when considering crosswinds. Even with calm winds at the surface, wind shear and turbulence can pose serious problems when aircraft rise above the mountain ridges surrounding the Angel Fire valley and encounter strong winds aloft.

ADAS Observations from WARP

By Neil Haley, CWSU Forecaster

The CWSU WARP Workstation currently provides access to 22 One Minute METAR Observation (OMO) locations across ZAB (see Fig 1). These observations are part of the ASOS Data Acquisition System (ADAS) collection.

The basic difference between the OMO and a regularly scheduled METAR or a SPECI is the OMO is generally not transmitted long-line beyond the local FAA or NWS communications network node. Also, OMO information is collected during the 60 second period ending at M+00 and made available to users each minute at M+23 (i.e. 23 seconds past the current minute). The WARP workstation collects and holds an hour of, or 60, OMO. When the top of the hour is reached, all the previous hours observations are purged and the collection begins again.



Arizona		New Mexico		Texas	
DUG	SDL	ABQ	ROW	AMA	ELP
INW	SJN	CNM	SAF	BGD	FST
OLS	TUS	CVN	SKX	DHT	MRF
PHX		DMN	TCC		
		LVS			

Table 1. ZAB ADAS Station I.D.

During instances when a SPECI is not triggered, these observations may provide critical weather information such as ceiling height, wind shifts, or strength of an approaching dust storm. So, if a situation arises where you need instant observations from one of the locations in Table 1, please see the CWSU.



ZAB CWSU and El Paso, TX National Weather Service Staff Reach Out to the Truth or Consequences, NM Airport (TCS)

By Jim Reynolds, CWSU Meteorologist-in-Charge

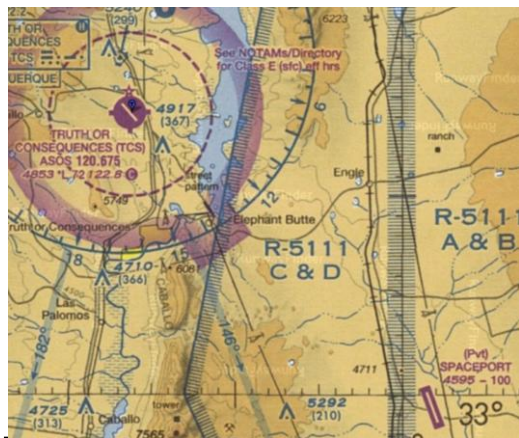
On Monday, February 13 Jim Reynolds and Roger Smith joined forces once again with Lance Tripoli, El Paso National Weather Service Aviation Program Leader, to meet with TCS Airport Manager **Dan Dickson**. Dan has been the airport manager at TCS since 1988. We began the meeting with a short tour of the small terminal building that had been

renovated inside and out within the past 6 months. Mr. Dickson told us that forty-seven aircraft are hangared at the airport and all available hangar space is used. The airport averages 15 aircraft operations a day, which is a mix of general aviation, life flight and military. Traffic throughout the year is constant with no high or low season.



Visitors entering the TCS Airport are greeted by an old 1960's vintage Lockheed P-80 fighter jet

There was also a lot of discussion related to Ted Turner who owns a ranch with around 300,000 acres used to raise buffalo in southern New Mexico. A few years ago, Mr. Turner offered to pay the city of Truth or Consequences to resurface the TCS runway and ramp space because his airplanes were tearing up the airport environment. Perhaps because the city council members didn't want any portion of the city to be influenced by Mr. Turner's "big money", the city's elders refused the offer and instead decided to simply repair damage to the airport when it occurred.



Aeronautical chart showing TCS relative to the Spaceport (source FAA)

There was a lot of talk about the new Spaceport, which is located about 35 miles to the southeast of TCS. The Spaceport was built under the restricted airspace of White Sands Missile Range (WSMR). The Spaceport runway is oriented north/south to conform to the San Andres mountain chain that resides along the west central portion of WSMR. Richard Branson of Virgin Atlantic fame, and Spaceport investor, once got himself into considerable trouble because he landed one of his airplanes at the Spaceport without permission from WSMR. Aircraft are only permitted to land back at the Spaceport when originally approved for and then launched into sub-space altitudes.

A storm in 2006 brought six inches of snow to TCS and essentially closed down I-25 along with the frontage road that spurs off the Interstate to the airport. While Dan was at the airport, a call came from the hospital in town that a life flight patient needed to be flown out of the airport. Not only did Mr. Dickson plow the runway sufficiently to allow an inbound twin-engine King-Air aircraft slated to pick up the patient to land, but Dan basically plowed his way into town to pick up the patient. He then transported that person back to the airport by following his previous plow track so the patient could be flown out.